- Exhibit E -

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

ABANTE ROOTER AND PLUMBING, INC., MARK HANKINS, and PHILIP J. CHARVAT, individually and on behalf of all others similarly situated,

Plaintiffs,

v.

ALARM.COM INCORPORATED, and ALARM.COM HOLDINGS, INC.,

Defendants.

Case No. 4:15-cv-06314-YGR

(Hon. Yvonne Gonzalez Rogers)

CORRECTED EXPERT REPORT OF RANDALL A. SNYDER

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I, Randall A. Snyder, hereby declare as follows:

1. My name is Randall A. Snyder. I am an adult over the age of 18 and a resident of the state of Nevada. I have personal knowledge of each of the matters stated herein, and if called to testify, I could and would testify competently about them.

2. I am an independent telecommunications technology consultant and I reside at 8113 Bay Pines Avenue, Las Vegas, Nevada, 89128. I have been retained by Terrell Marshall Law Group PLLC in the matter *Abante Rooter v. Alarm.com Incorporated, et al.*, No. 4:15-cv-06314-YGR (N.D. Cal.) to provide my opinions relating to dialing technology described within the Telephone Consumer Protection Act, 47 U.S.C. § 227, *et seq.* ("TCPA") and utilized by Nationwide Alarms, LLC to place calls to cellular telephone numbers. I understand that Plaintiffs allege such calls were placed on behalf of Alarm.com Incorporated ("Alarm.com" or "Defendants") and that Plaintiffs allege Alarm.com is vicariously liable for the calls. I have been asked to determine whether the cloud-based dialing system Nationwide used to place calls on behalf of Defendants is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, and/or from a list or database of numbers, and whether Nationwide operated equipment which has the capacity to dial telephone numbers without human intervention.

RELEVANT TRAINING, EXPERIENCE AND CREDENTIALS

3. I have over 33 years of experience in telecommunications network and system architecture, engineering, design and technology. I have expertise in the fields of both wireline and wireless telecommunications networking technology. I have a Bachelor of Arts degree with a major in mathematics from Franklin and Marshall College. I have been retained as a testifying or consulting expert in over 200 cases regarding cellular telecommunications technology, including over 165 cases by both plaintiffs and defendants regarding the TCPA and associated regulations.

4. I was a software engineer, designing, developing, testing and deploying code for complex real-time database, data communications and telecommunications systems for the first eight years of my career. This work included designing and developing relational databases, database applications, data communications protocols, telecommunications protocols, signaling protocols, call control and call processing systems and dynamic traffic engineering and overload control systems for the cellular networks. Overall, these software systems were written in assembly computer language (ASM), Pascal and C programming languages.

5. I have taught many classes and seminars on both wireline and wireless telecommunication network technologies and have been a panelist and speaker at numerous conferences at the Institute of Electrical and Electronics Engineers ("IEEE"), the Personal Communication Society ("PCS"), and the Cellular Telecommunications and Internet Association ("CTIA"). I spent seven years developing standards within the American National Standards Institute's ("ANSI's") subsidiary organization, the Telecommunications Industry Association ("TIA"), providing technical contributions and authoring and editing telecommunications proposed standards documents. Most notably, I authored and oversaw the standardization of Interim Standard 93, providing interconnection technology between wireline and wireless telecommunications networks, which is now a fully accredited ANSI standard.

6. I am the co-author of the McGraw-Hill books "Mobile Telecommunications Networking with IS-41," and "Wireless Telecommunications Networking with ANSI-41, 2nd edition" published in 1997 and 2001, respectively. I have been issued 39 U.S. and international patents on telecommunications networking technology. I have been hired as a consultant by the CTIA, as well as by many wireline and wireless telecommunications companies, including Bell Laboratories, McCaw Cellular, AirTouch, AirTouch International, AT&T Wireless, AT&T Mobility, Lucent, Nokia, Ericsson, Motorola, Samsung, Siemens, Nextwave, MCI, Daewoo,

Globalstar, T-Mobile, Sprint, U.S. Cellular, Teleglobe Canada, Teledesic and other telecommunications technology vendors and service providers. I was also nominated in 2006 for a National Television Arts Emmy Award for Outstanding Achievement in Advanced Media Technology for unique wireless content distribution technology I designed while employed at Entriq, Inc. Still more detail, as well as details of publications that I have authored or co-authored within at least the past 10 years, are provided in my attached *curriculum vitae* (a true and correct copy of which is attached hereto as Exhibit A) along with a list of cases where I served as a testifying or consulting expert and my standard rate sheet.

7. I am being compensated at the rate of $475 per hour for my study, analysis and written testimony in this case.

DOCUMENTS REVIEWED AND CONSIDERED

8. My opinions in this Declaration are based on my education, knowledge, experience, expertise, training and my review of the following documents in this case:

a. Class Action Complaint for Damages and Injunctive Relief;

b. Orders Granting Plaintiffs' Motion for Class Certification as Modified by the Court; Granting in Part and Denying in Part Defendants' motions to Strike;

c. Ytel, Inc. End User License Agreement (Bates Nos. YTEL 000001–YTEL 000010);

d. Ytel, Inc. Master Services Agreement (Bates Nos. YTEL 000011–YTEL 000025);

e. Affidavit of Joe Moretti;

f. Public information from Ytel website (https://www.ytel.com);

g. Revised results of cellular Telephone Number Analysis performed by DRRT

h. Telephone Consumer Protection Act, 47 U.S.C. § 227, *et seq.* ("TCPA") and regulations promulgated thereunder;

i. Federal Communications Commission's ("FCC") Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated October 16, 1992;

j. FCC's Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated July 3, 2003;

k. FCC's Declaratory Ruling in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 Request of ACA International for Clarification and Declaratory Ruling dated January 4, 2008;

l. Appeal from the United States District Court for the Northern District of California, No. 07-16356, D.C. No. CV-06-02893-CW Opinion, filed June 19, 2009;

m. FCC's Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated February 15, 2012;

n. FCC's Notice of Proposed Rulemaking in the Matter of the Middle Class Tax Relief and Job Creation Act of 2012, Establishment of a Public Safety Answering Point Do-Not-Call Registry dated May 22, 2012;

o. FCC's Declaratory Ruling in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated July 10, 2015.

SUMMARY OF OPINIONS

9. The TCPA defines an automatic telephone dialing system ("ATDS") as "equipment which has the capacity – (i) to store or produce telephone numbers to be called, using a random or sequential number generator; and (ii) to dial such numbers." Additionally, it is my understanding that the Federal Communications Commission ("FCC") has issued regulations that also define an ATDS as including the capacity to dial telephone numbers from a provided list or database of telephone numbers without human intervention.

10. Based on my review of the relevant documents and the facts described above, it is my opinion that Nationwide Alarms, LLC utilized equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a

list or database of numbers, and to dial such numbers without human intervention. I base this opinion on my knowledge, education, experience, expertise, training and on the evidence I have reviewed.

11. Nationwide Alarms LLC employed automatic telephone dialing services provided by Ytel, for the purpose of making outbound telemarketing calls to consumers.

12. Ytel provides cloud-based call center facilities to its customers that remotely use those facilities to create and manage automatic outbound calling campaigns. Ytel is able to offer these call center services by deploying automatic telephone dialing hardware and software that is used to automate dialing functions. Ytel provides automatic telephone dialing services to its customers that have the ability to input a list of telephone numbers to be subsequently dialed.

13. In addition to dialing telephone numbers using a random or sequential number generator, the FCC has determined that computer equipment capable of dialing lists of numbers is also subject to the TCPA's restrictions on the use of autodialers.

14. Therefore, it is my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents, and the facts described above, that the Ytel Cloud Contact Center automatic dialing system is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention.

15. Therefore, it is my opinion, based on my knowledge, education, experience, expertise, training, and the facts described above, that Nationwide Alarms utilized an ATDS as defined within the TCPA to initiate automated calls to Plaintiff Hankins', Plaintiff Abante Rooter's, and Cell Phone Class members' cellular telephone numbers.

16. In addition, based on my knowledge, education, experience, expertise, training, conversations with DRRT, and the facts described above, it is my opinion that Nationwide Alarms

used the Ytel system to initiate 119,484 calls to 22,055 unique telephone numbers that (1) were cellular telephones at the time of the calls and (2) had not been provided to Alarm.com before the calls.

AUTOMATIC TELEPHONE DIALING FUNCTIONS

17. Automatic telephone dialing systems used by companies that perform telemarketing and debt collection services typically fall into several fundamental types of computerized telephone number dialing: *preview* dialing, *progressive* dialing, *predictive* dialing and *unattended message* dialing. Note that telephone numbers to be dialed using these dialing functions are organized as "campaigns." A campaign is simply an electronic list of telephone numbers organized by some defined criteria that are to be called for a specific purpose. Each distinct campaign calls the telephone numbers in the list using the same dialing method, which is defined within the campaign setup parameters.

18. Preview dialing is a method for dialing individual telephone numbers by call center agents. When preview dialing is used, each individual call center agent can "preview" a computerized call record and has the ability to originate a call to the consumer. For example, the call center agent may be able to enter the individual digits of a full 10-digit telephone number. The entered digits are sent as a message into the automatic dialing system to be subsequently dialed by the system. Furthermore, the call center agent can "invoke" the automatic sending of all the individual digits of the telephone number into the system at one time without entering the individual digits. The telephone number to be called may be displayed on the computer screen and the call center agent sends the digits into the automatic dialing system by clicking the displayed number itself or, for example, by clicking a "submit" button for the displayed telephone number. In some cases, a soft-phone application enables the call center agent to dial the number; in other cases, clicking the number simply sends a message containing the entire telephone number into the

automatic dialing system to be subsequently dialed by the system. In addition, sometimes preview dialing can be fully automated. This automation is sometimes known as "timed preview dialing" or "dynamic preview dialing." Timed/dynamic preview dialing automatically processes the next telephone number in the list once the agent has concluded a call. The next telephone number to be called is processed at some predefined time limit, for example 90 seconds. If the agent does not call the next number within 90 seconds, the preview dialing system automatically processes the next telephone number in the list. This mechanism is typically used to maximize the number of calls made and to ensure call center agents are moving quickly through their call record list.

19. Progressive dialing (sometimes known as "power dialing" or "war dialing") is a computerized method for automatically dialing lists of telephone numbers commonly used in call center operations. Progressive dialing is a type of automatic telephone dialing whereby the equipment initiates outbound telephone calls for sales, telemarketing, collections, information surveys or other purposes by *progressively* dialing through a list of telephone numbers. Using this basic type of automatic dialing, the computerized system dynamically regulates the number of calls to be automatically dialed by maintaining a simple balance among the number of call center agents currently available, the number of calls currently in progress and the "dial ratio." The dial ratio is simply the ratio of telephone lines configured per call center agent involved in a particular calling campaign. Using this mechanism, the number of automatic outbound telephone calls to be dialed by the computer system can be dynamically regulated (*i.e.*, increased or decreased) over time simply based on the number of calls in progress, the number of agents and the number of telephone lines available per agent. Prerecorded voice technology may also be used to announce to the called party to wait for a call center agent to respond. Called parties that answer a progressively dialed outbound call may be redirected and connected to a call center agent. In addition, progressive dialing methods enable a variety of programmatic ways to treat calls that have not been answered

by the called party. As examples, calls that may be answered by voicemail, calls that receive a busy signal and calls that are not answered, may all be treated and managed differently by the automatic dialing system. Progressive dialing can sometimes use an interactive voice response ("IVR") system, whereby an artificial or prerecorded voice message is used to communicate with the called party and computerized prompts may be used to enable the called party to provide responses. The artificial or prerecorded voice messages are recorded before the calling campaign is executed and are stored in audio files that are configured as part of the IVR calling campaign.

20. Predictive dialing is a computerized method for automatically dialing lists of telephone numbers commonly used in call center operations. Predictive dialing is a type of automatic telephone dialing as defined by the FCC to make outbound telephone calls for sales, telemarketing, collections, information surveys or other purposes. Predictive dialing provides the capability to "predict" the availability of call center agents that can respond to the outbound calls that have been dialed by the predictive dialing system and answered by the called party. Prerecorded voice technology may also be used to announce to the called party to wait for a call center agent to respond. Called parties that answer a predictively dialed outbound call typically experience a distinctive and recognizable pause due to the time interval during which the call is redirected and connected to an available call center agent. Prerecorded voice technology may also be used to announce to the called party to wait for a call center agent to respond. Called parties that answer a predictively dialed outbound call typically experience a distinctive and recognizable pause due to the time interval during which the call is redirected and connected to an available call center agent. In addition, predictive dialing methods enable a variety of programmatic ways to treat calls that have not been answered by the called party. As examples, calls that may be answered by voicemail, calls that receive a busy signal and calls that are not answered, may all be treated and managed differently by the automatic dialing system.

21. In addition, predictive dialing methods enable a variety of programmatic ways to treat calls that have not been answered by the called party. As examples, calls that may be answered by voicemail, calls that receive a busy signal and calls that are not answered, may all be treated and managed differently by the automatic dialing system.

22. Note that the actual *predictive* functionality of predictive dialers occurs *after* the equipment automatically dials telephone numbers from a list of numbers. Therefore, the automatic telephone dialing function of the equipment, *i.e.*, the ability to automatically dial telephone numbers from a list of numbers, occurs prior to the call being connected and *predictively* redirected to an available call center agent. Thus, predictive dialing is identical to progressive dialing with the addition of the automated capability of connecting the called party (once the outbound call is answered) to an algorithmically predicted call center agent. Note that Progressive dialing can also incorporate an algorithm, albeit much less sophisticated than predictive dialing algorithms, to redirect answered calls to agents.

23. Unattended message dialing (sometimes known as a "message blast" or a "phone blast") is a computerized method for automatically dialing electronic lists of telephone numbers with the intent to only transmit a prerecorded voice message to the called parties once the call is answered. If an answering machine or voicemail system answers the call, the prerecorded voice message can be left as a recording for the called party to listen to later. No call center agents are required and there are no inbound calls to the system. Unattended message calls are always outbound, from an automatic telephone dialing system to a stored electronic list of telephone numbers. The prerecorded voice message is recorded before the calling campaign is executed and is stored in an audio file that is automatically played when the call is answered.

24. Both progressive and predictive automatic dialing require the equipment to perform *call progress analysis* for each automatically initiated call. Call progress analysis automatically

detects ring-back tones, busy tones, fast-busy tones, special information tones, answering machines, voicemail systems, a person answering a call, etc. The equipment itself essentially *listens* to the initiated call that is in progress and can be programmed to act in a particular way depending on the result of the call attempt. In SIP-based VoIP systems, call progress analysis is performed and transmitted via "session progress messages." Call progress analysis capability is a key characteristic of automatic telephone dialing systems. The presence of this function is inherent in the process of automatic dialing and clearly implies the capability of the equipment to automatically dial telephone numbers. This is because the functional process to analyze call progress tones is established prior to the process of electronically signaling out (*i.e.*, dialing) the ten digits of a telephone number. Computerized call progress analysis is inextricably tied to the process of automatic electronic dialing.

25. Additionally, unattended message dialing, predictive dialing and progressive dialing can use prerecorded voice technology to leave a message on an answering machine or a voicemail system if a person does not answer the call. This function, of course, is based on the ability of the equipment to perform call progress analysis, so different prerecorded messages can be left when the automatic dialing system detects a person answering versus a voicemail system answering. For example, prerecorded voice technology can be used for predictive dialing to announce to the called party to wait on the line for a call center agent to respond or to leave a prerecorded message on an answering machine.

26. These types of computerized dialing (*i.e.*, preview, progressive, predictive and unattended message) require the automatic system to store telephone numbers to be called. The numbers stored electronically are automatically and directly dialed by the dialing system equipment. The list of telephone numbers to be called by the equipment is made available to the dialing system as part of setting up each call or calling campaign.

THE TCPA AND AUTOMATIC TELEPHONE DIALING SYSTEMS

27. For ease of reference, this section simply presents the TCPA and FCC definitions that I understand, from Plaintiffs' attorneys, to be the most applicable to my analysis in this case.

28. The TCPA defines an ATDS as "equipment which has the capacity— (i) to store or produce telephone numbers to be called, using a random or sequential number generator; and (ii) to dial such numbers." (47 U.S.C. § 227(a)(1)).

29. In the FCC's Report and Order of July 3, 2003, 18 FCC Rcd. 14014 (2003), the Commission stated the following:

> The statutory definition contemplates autodialing equipment that either stores or produces numbers. It also provides that, in order to be considered an "automatic telephone dialing system," the equipment need only have the "*capacity* to store or produce telephone numbers (emphasis added)..." It is clear from the statutory language and the legislative history that Congress anticipated that the FCC, under its TCPA rulemaking authority, might need to consider changes in technologies. In the past, telemarketers may have used dialing equipment to create and dial 10-digit telephone numbers arbitrarily. As one commenter points out, the evolution of the teleservices industry has progressed to the point where using lists of numbers is far more cost effective. The basic function of such equipment, however, has not changed—the capacity to dial numbers without human intervention. We fully expect automated dialing technology to continue to develop. (¶ 132.)

> [T]o exclude from these restrictions equipment that use predictive dialing software from the definition of "automated telephone dialing equipment" simply because it relies on a given set of numbers would lead to an unintended result. Calls to emergency numbers, health care facilities, and wireless numbers would be permissible when the dialing equipment is paired with predictive dialing software and a database of numbers, but prohibited when the equipment operates independently of such lists and software packages. We believe the purpose of the requirement that equipment have the "capacity to store or produce telephone numbers to be called" is to ensure that the prohibition on autodialed calls not be circumvented. Therefore, the Commission finds that a predictive dialer falls within the meaning and statutory definition of "automatic telephone dialing equipment" and the intent of Congress. (¶ 133.)

30. The FCC's Report and Order of January 4, 2008, 23 FCC Rcd. 559 (2008), stated the following:

> The commission noted that the evolution of the teleservices industry had progressed to the point where dialing lists of numbers was far more cost effective, but that the basic function of such dialing equipment, had not changed—the capacity to dial numbers without human intervention. The Commission noted that it expected such automated dialing technology to continue to develop and that Congress had clearly anticipated that the FCC might need to consider changes in technology. (¶ 13.)
>
> …calls to emergency numbers, health care facilities, and wireless numbers are permissible when the dialing equipment is paired with predictive dialing software and a database of numbers, but prohibited when the equipment operates independently of such lists, would be inconsistent with the avowed purpose of the TCPA and the intent of Congress in protecting consumers from such calls. (¶ 14.)

31. In the FCC's Notice of Proposed Rulemaking of May 22, 2012, the Commission stated the following:

> Under the TCPA, the term "automatic telephone dialing system" is defined as "equipment which has the capacity– (A) to store or produce telephone numbers to be called, using a random or sequential number generator; and (B) to dial such numbers." Id. at § 227(a)(1). The Commission has emphasized that this definition covers any equipment that has the specified capacity to generate numbers and dial them without human intervention whether or not the numbers called are randomly or sequentially generated or come from calling lists. (p.4, footnote 12.)

32. In the FCC Declaratory Ruling and Order of July 10, 2015, 30 FCC Rcd. 7961 (2015), the Commission stated the following:

> We reaffirm our previous statements that dialing equipment generally has the capacity to store or produce, and dial random or sequential numbers (and thus meets the TCPA's definition of "autodialer") even if it is not presently used for that purpose, including when the caller is calling a set list of consumers. We also reiterate that predictive dialers, as previously described by the Commission, satisfy the TCPA's definition of "autodialer" for the same reason. We also find that callers cannot avoid obtaining consent by dividing ownership of pieces of dialing equipment that work in concert among multiple entities. (¶ 10.)

33. Additionally, the FCC again emphasized that dialing systems that dial telephone numbers from lists of numbers also qualify as an ATDS within the TCPA:

> The Commission declined to distinguish between calls to wireless telephone numbers made by dialing equipment "paired with predictive dialing software and a database of numbers" and calls made "when the equipment operates independently of such lists and software packages." Recognizing the developments in calling technology, the Commission found that "[t]he basic function of such equipment, however, has not changed—the capacity to dial numbers without human intervention." The Commission found it troubling that predictive dialers, like dialers that utilize random or sequential numbers instead of a list of numbers, retain the capacity to dial thousands of numbers in a short period of time and that construing the autodialer definition to exclude predictive dialers could harm public safety by allowing such equipment to be used to place potentially large numbers of non-emergency calls to emergency numbers, a result the TCPA was intended to prevent. The Commission concluded that the TCPA's unqualified use of the term "capacity. was intended to prevent circumvention of the restriction on making autodialed calls to wireless phones and emergency numbers and found that "a predictive dialer falls within the meaning and statutory definition of "automatic telephone dialing equipment" and the intent of Congress. (¶ 14.)
>
> We agree with commenters who argue that the TCPA's use of "capacity" does not exempt equipment that lacks the "present ability" to dial randomly or sequentially. We agree that Congress intended a broad definition of autodialer, and that the Commission has already twice addressed the issue in 2003 and 2008, stating that autodialers need only have the "capacity" to dial random and sequential numbers, rather than the "present ability" to do so. Hence, any equipment that has the requisite "capacity" is an autodialer and is therefore subject to the TCPA. (¶ 15.)

34. Furthermore, the FCC emphasized that the technological test to determine if a system meets the definition of an ATDS is based on the system's potential functionalities and not the system's "present use" or "current capacity":

> By finding that, even when the equipment presently lacked the necessary software, it nevertheless had the requisite capacity to be an autodialer, the Commission implicitly rejected any "present use" or "current capacity" test. In other words, the capacity of an autodialer is not limited to its current configuration but also includes its potential functionalities. (¶ 16.)

35. Moreover,

> We conclude that such equipment can be deemed an autodialer if the net result of such voluntary combination enables the equipment to have the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, and to dial such numbers. The fact that two separate entities have voluntarily entered into an agreement to provide such functionality does not alter this analysis. As one commenter notes, this conclusion is consistent with the statutory language and prior Commission interpretations of the TCPA. The TCPA uses the word "system" to describe the automated dialing equipment that is defined in section 227(a)(1) of the Act. The Commission noted, in concluding that a predictive dialer meets the definition of an autodialer, that "[t]he hardware, when paired with certain software, has the capacity to store or produce numbers and dial those numbers." As a result, the Commission has recognized that various pieces of different equipment and software can be combined to form an autodialer, as contemplated by the TCPA. The fact that these individual pieces of equipment and software might be separately owned does not change this analysis. (¶ 24.)

CLOUD-BASED AUTOMATIC DIALING SYSTEMS

36. Many software application services companies market and sell business solutions, including various telephone dialing and call (or contact) center services, via cloud-based systems.

37. A cloud-based system is a software delivery model whereby application software and associated data are centrally hosted in the "cloud." The cloud means a large, centralized computer equipment system serving multiple remote client users in real-time via the Internet. These systems are typically accessed by customers using a web-based application through an Internet web browser. Cloud-based solutions have become a common delivery model for many business applications for several reasons. The centralized computer equipment can provide software services to hundreds or thousands of remote customer users from the centralized hosted platform; the company operating and maintaining the platform need not deliver and install a physical system to each customer, obviating maintenance and professional services costs for those systems; software upgrades and new features and functions for the platform can be installed just

once and made available to all customers at the same time, and; customers need not incur the capital and operational expenditures to own and operate a complex computer equipment system of their own.

38. Companies that market and sell cloud-based automatic dialing services typically provide a software-based application programming interface ("API") that can be used by telemarketers and other customers to develop a software application that connects to their dialing system platform to initiate automatic outbound calls. An API is essentially a programmatic method of communication between two computer systems. The API can be used as part of a software application created by the telemarketer to access the automatic dialing system, or it can be an online portal made accessible to the telemarketer via a web-based user interface ("UI"). These software methods enable a telemarketer to create an automatic telephone dialing campaign and then upload, or otherwise choose, a list of telephone numbers to be dialed by the system. The automatic dialing system automates the process of initiating calls to the numbers on the supplied list of numbers *en masse* as outbound calls to the list of telephone numbers previously provided to the dialing system.

39. Cloud-based automatic dialing systems provide the automatic functions enabling multiple types of outbound calling campaigns. These dialing systems provide one or more of predictive dialing, power dialing, preview dialing, timed preview dialing, unattended message dialing. Even if a particular client customer does not make use of one of these automatic dialing functions, these dialing systems nevertheless inherently maintain the capability to automatically dial using these functions as other client customers can use those functions simultaneously.

THE YTEL CLOUD CONTACT CENTER AUTOMATIC DIALING SYSTEM

40. It is my understanding that Nationwide Alarms used telecommunications services

provided by Ytel[1] to initiate calls to consumers.

41. Ytel provides various cloud-based software services to its client customers, enabling them to realize a "virtual" call center facility to communicate with prospective customers without the need to invest in the purchase, operation and management of the necessary facilities, hardware, software and personnel required to operate their own call center. Ytel provides automated and sophisticated software services to companies desiring to communicate with consumers via telephone. These automated services include managing telemarketing campaigns, managing call agents, managing prospective customers and customer lists, call monitoring, technical support, etc. Ytel manages and operates the centralized hosted computerized software and equipment that provides automatic telephone dialing services to multiple remote call center customers using real-time internet connections.

42. The Ytel Cloud Contact Center provides several types of automatic telephone dialing software services including predictive dialing, power dialing, progressive dialing and preview dialing services. Furthermore, the Ytel Cloud Contact Center dialing system provides campaign and telephone list (*i.e.*, customer acquisition lists) management functions. (Exhibit B.)

43. Ytel's Master Services Agreement states that Ytel provides, "[O]nline cloud-based software and related platforms including, but not limited to, inbound call center software, outbound calling applications, predictive dialing technology, voice broadcasting technology, Interactive Voice Response ("IVR") technology, sip trunking , audio conversion, telephone lobbying system technology, name and address capture, conferencing technology, database scrubbing and message play…" (Exhibit C, YTEL 000018.)

44. Additionally, Ytel's end user license agreement ("EULA") includes the contracted

[1] https://www.ytel.com

features, "Inbound, outbound and blended call handling," the "Ability to set-up and manage multiple inbound and outbound campaigns," "Web-based IVR editor to control flow of inbound calls," "No agent and after hours call handling," "Ability to set outbound caller ID per campaign, per list or based on customer area code," and "Agents can see calls in queue." (Exhibit C, YTEL 000005.) Each of these telecommunications features is associated with, and relevant to, automatic telephone dialing functions.

45. Therefore, it is my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents, and the facts described above that the Ytel Cloud Contact Center dialing system is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention.

DETERMINING LANDLINE AND CELLULAR TELEPHONE NUMBERS

46. Just over 50% of all households in the U.S. today exclusively use cell phones. Cellular telephone numbers are often used as home, residential, business or other numbers and are subsequently designated as such on forms and other records. Due to the inherent unreliability of these forms and records as the guiding information for making automated outbound telephone calls, most debt collectors and telemarketers use a highly reliable and inexpensive technology solution that has been available to them for well over a decade.

47. In November, 2003, the FCC mandated the implementation of a service known as "number portability" to be offered by both landline and cellular common carriers to all landline and cellular subscribers. Specifically, the service is characterized by two features: Local Number Portability ("LNP") and Wireless Local Number Portability ("WLNP"). LNP enables cellular subscribers to "port," or transfer, their cellular telephone numbers from a cellular carrier to a landline carrier within a defined geographic local area to essentially become home landline

telephone numbers and vice versa. WLNP enables cellular subscribers to "port," or transfer, their cellular telephone numbers from one cellular carrier to another, allowing them to essentially own their telephone number regardless of which cellular carrier they wish to subscribe to.

48. Because of number portability, there is no distinguishing characteristic within the telephone number format and the value of the digits themselves to determine which carrier services a particular telephone number and whether the number is even a landline or cellular number. The standard numbering plan in the United States for both landline and cellular telephone numbers is the ten-digit number format: "NPA-NXX-XXXX." "NPA" refers to the Numbering Plan Area, more commonly known as the three-digit "area code." The NPA is also of the format "NXX." The entire format of the number, "NXX-NXX-XXXX" refers to a numbering plan where the digit "N" can be any number from 2 through 9 and the digit "X" can be any number from 0 through 9.

49. If a subscriber wishes to port his or her landline telephone number to a cellular telephone number, or vice versa, or their telephone number to another competing landline or cellular carrier, the carrier is required to do so within a few hours or less. To do this, all of the landline and cellular carriers are connected to a nationwide real-time number portability database. The primary number portability database is owned, operated and maintained by an independent company known as ©Telcordia Technologies, Inc. dba "iconectiv."[2] Because of the FCC mandate for number portability among all common carriers, a centralized real-time telephone number portability database needs to be employed for any and all telephone calls to be completed to the appropriate carrier network.

50. The number portability database essentially associates each and every telephone number with a landline or cellular carrier network identifier, enabling calls to be made to the

[2] http://www.iconectiv.com/numbering/number-portability-administration-center-npac

proper landline or cellular carrier network. During the course of establishing each and every telephone call and to deliver those calls to the proper network servicing the called party numbers, the number portability database is queried in real-time so that calls can terminate in the proper carrier network and properly delivered to the called party. Due to the critical nature of this service, reliability of iconectiv's database is among the highest in the telecommunications industry.

51. Iconectiv, as well as other information services companies that provide commercial access to iconectiv's database, is commonly employed by debt collection and telemarketing companies to analyze databases or lists of telephone numbers prior to calling them using an automatic telephone dialing system. Iconectiv's client wholesalers lease and maintain access to the number portability database enabling organizations to definitively know whether any telephone numbers in a list of numbers are cellular or not. I have personally been involved with contracting these organizations to obtain this telephone number data, both for wireless network products I have designed and in many TCPA cases.

52. Telephone numbers to be called by debt collectors and telemarketers are typically "scrubbed" by either iconectiv or its client wholesalers to determine which ones are cellular telephone numbers prior to being added to a campaign of numbers to be called by an automatic telephone dialing system. "Scrubbing" is a term used to describe a process by which a list of telephone numbers is compared against another list of telephone numbers having additional parameters associated with those numbers. If a telephone number is determined to be a cellular telephone number by this "scrubbing" process, it can be treated appropriately and in accordance with all local, state and federal statutes and regulations. For example, organizations need to recognize whether a telephone number is a landline or cellular number, and treat them appropriately so that they do not initiate automatic calls in potential violation of the TCPA.

53. Based on my knowledge, education, experience, expertise and training, it is my

opinion that consumers' telephone numbers can be definitively and clearly determined to be either cellular or landline numbers. Furthermore, the ability to do so is an inexpensive and straightforward administrative process commonly used in the debt collection and telemarketing industries.

54. I have personal and detailed technical experience with many of the information service companies that provide commercial access to iconectiv's database to perform the cell phone scrubbing process. Among these are Alexander Reus, P.A. dba DRRT, a limited partner of Diaz Reus & Targ LLP[3] ("DRRT").

55. According to DRRT, 119,484 calls were made to 22,055 unique cellular telephone numbers by the Nationwide Alarms using the automatic dialing services provided by Ytel. Attached to this report as Corrected Exhibit D is a copy of a list of the 22,055 unique cellular telephone numbers and corresponding number of calls ("Corrected Cell Phone Class List") that DRRT provided to me. I am very familiar with the methodology and techniques used to perform this cell phone scrubbing process, as described above. I am personally familiar with DRRT and its engagement in dozens of TCPA class action cases where it has properly performed the cell phone scrubbing process that I agree with. I am familiar with the steps that DRRT took to perform the cell phone scrub in this case.

56. I understand that DRRT has the ability to determine whether a telephone number was a cellular or landline number at any time in the past, removing the possibility that a cellular telephone number on the "scrubbed" list of Cellular Class members could have been ported and was a landline number at the time calls to that number were made. I understand that in this case the determined list of cellular telephone numbers resulting from the initial analysis scrub was

[3] https://drrt.com/areas-of-expertise/litigation-support/telephone-consumer-protection-act-tcpa/

compared against telephone numbers that were ported both one day before calls to that number were made and one day after calls to that number were made. This comparison resulted in the removal of any calls that may have been landline numbers at the time the calls were made, thus ensuring that the telephone numbers on the final proposed Cellular Class member list were, in fact, cellular telephone numbers at the time the calls were made. I understand that DRRT also excluded inbound calls from its analysis. DRRT also excluded calls to telephone numbers that were included on six spreadsheets of telephone numbers that consumers had provided to Defendants.

57. Therefore, based on my knowledge, education, experience, expertise, training, and the facts described above, it is my opinion that Nationwide Alarms initiated 119,484 calls to 22,055 unique cellular telephone numbers that had not been provided to Alarm.com as determined by DRRT.

58. I have reviewed the Corrected Cell Phone Class List. I understand that Plaintiff Hankins' cell phone number is (813) 503-9101. I searched the Corrected Cell Phone Class List that DRRT provided me and found this number on it. I understand that Plaintiff Abante Rooter's cell phone number is (510) 540-7210. I searched the Corrected Cell Phone Class List that DRRT provided me and found this number on it.

CONCLUSIONS

59. Nationwide Alarms employed automatic telephone dialing services provided by Ytel, for the purpose of making outbound telemarketing calls to consumers.

60. Ytel provides cloud-based call center facilities to its customers that remotely use those facilities to create and manage automatic outbound calling campaigns. Ytel is able to offer these call center services by deploying automatic telephone dialing hardware and software that is used to automate dialing functions. Ytel provides automatic telephone dialing services to its customers that have the ability to input a list of telephone numbers to be subsequently dialed.

61. In addition to dialing telephone numbers using a random or sequential number generator, the FCC has determined that computer equipment capable of dialing lists of numbers is also subject to the TCPA's restrictions on the use of autodialers.

62. Therefore, it is my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents, and the facts described above, that the Ytel Cloud Contact Center automatic dialing system is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention.

63. Therefore, it is my opinion, based on my knowledge, education, experience, expertise, training, and the facts described above, that Nationwide Alarms utilized an ATDS as defined within the TCPA to initiate automated calls to Plaintiff Hankins', Plaintiff Abante Rooter's, and Cell Phone Class members' cellular telephone numbers.

64. In addition, based on my knowledge, education, experience, expertise, training, and the facts described above, it is my opinion that Nationwide Alarms initiated 119,484 calls to 22,055 unique telephone numbers that were cellular telephones as of the date of the call as determined by DRRT and had not been provided to Defendants before the calls.

65. My opinions in this Report are based upon extensive experience in the telecommunications industry, a detailed understanding of telecommunications systems and a detailed understanding of automatic telephone dialing systems. I hereby reserve the right to supplement or modify my opinions detailed in this Report to the extent that new information is made available through discovery or other means.

I declare that the foregoing is true and correct subject to the laws of perjury of the United States.

Executed in Las Vegas, Nevada, on this 11th day of January, 2018.

Randall A. Snyder

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